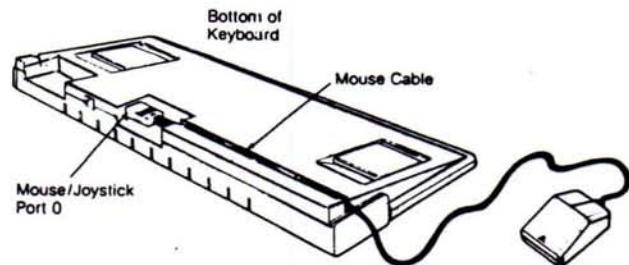
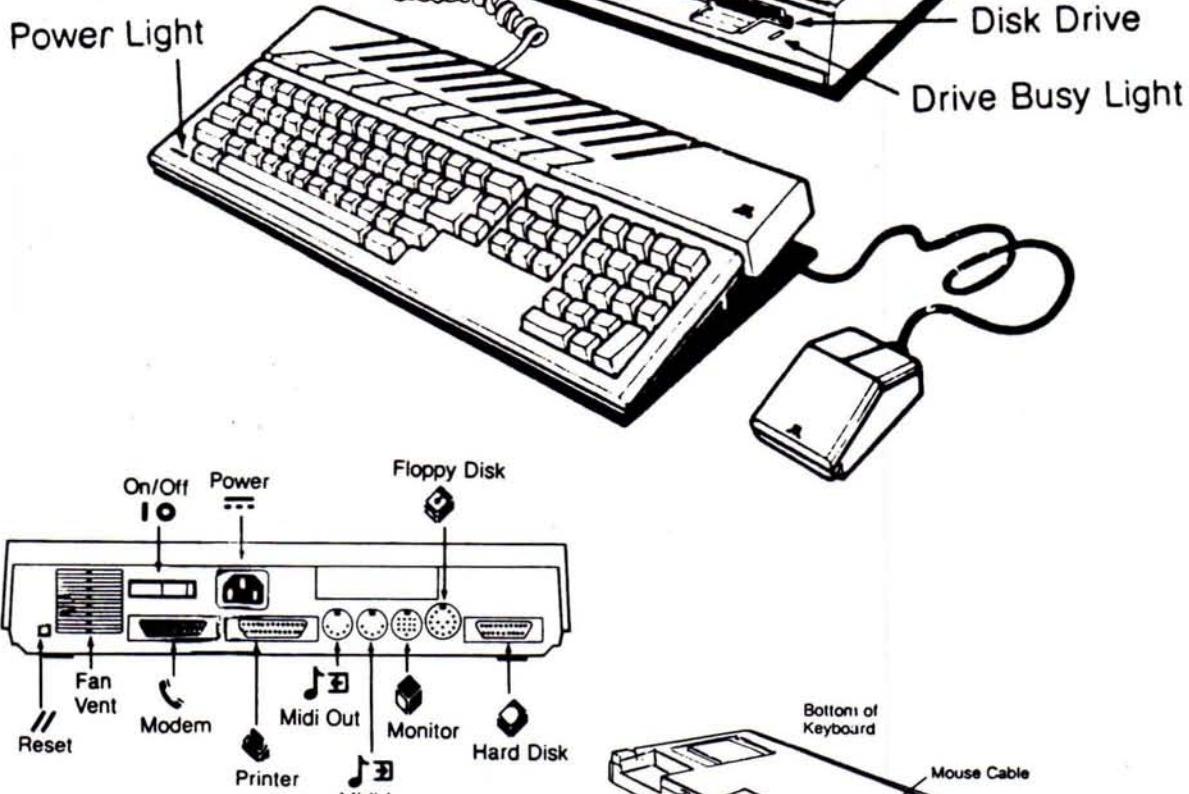


# H a r d c o o P y

November 1987



## EDITORIAL

I've noticed a very subtle change in ATARI Corporation recently. At the last e-board meeting, a comment was made about the decided lack of activity in the ATARI community lately -- how, after nearly eight weeks, there was really nothing new to report. Why, just a few short months ago ATARI was announcing this or that just about every week. And now, nothing! What's up?

I know that many ATARI users are going into withdrawal waiting for some earth-shattering new product. But that's what we're used to. So, should we be worried, fearful, or what? I think it may be a good sign. Just think of all those announcements which turned out to be "vaporware." I need only mention the ATARI Laser Printer to raise the blood pressure of many ATARI enthusiasts. It seemed like ATARI would go right from the boardroom to the pressroom with new product ideas, never bothering to stop off in engineering to see if it could be done on time, if at all. The ideas were flowing faster than the flowcharts in the software development department.

But now ... nothing new to announce. Could it be that upper management at ATARI has learned their lesson? Might they be actually developing products BEFORE announcing them? Maybe

they're trying to actually complete a project and get it ready for production before committing themselves in the media. I know, I'm a dreamer -- unrealistic. But maybe, just maybe, ATARI found out that they're the ones being unrealistic in their goal setting and scheduling.

Let's hope the next announcement we hear from ATARI is that this fantastic new product (whatever it may be) is already in the distributors' warehouses ready for purchase. They have great products, let's see their marketing skills grow to be as good as their computers.

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# TEMPS FUGIT

an ST program by Chris Scullion

I don't have a battery-backed clock calendar on my ATARI ST. Oh, sure, I know they're available, but I just haven't gotten one yet. Now, what would happen if I decided I really needed to keep track of the dates of my files? I'd better be sure to set that clock from the control panel accessory. But let me ask you this: what if I had an IBM PC or compatible? Well, then if you don't have a battery clock, DOS just asks you for the time and date whenever you turn on your machine. That's pretty good, no need to remember because the computer reminds you to set it. After all, that's what computers are for, right?

But I don't have a PC, I have my ST. TOS doesn't handle this as nicely as MSDOS does. Doesn't handle it at all, in fact. As I thought about it, I felt an educational experience comming on. I know there must be a dozen utilities that can sit in your AUTO folder and do just what I want but ... I thought I'd try to write the program myself, and learn a little bit about BIOS and Personal PASCAL along the way.

So here it is, my clock utility. The program is very easy to follow, so no real explanation should be needed. There are a few tricks which don't appear in the listing which you should be aware of. Personal PASCAL allows you to compile for GEM or TOS. If you use any GEM routines or capabilities, you must compile with the GEM option. But, when a program is executed from an AUTO folder, GEM isn't awake yet, so you can't use any GEM stuff. No sweat -- as you can see in the listing,

no GEM, just a few WRITES and READS. Now the catch! The system will run any program in the AUTO folder that ends in ".PRG", usually, that means a GEM program!? Now what -- can't use GEM because it's not there yet, but it's got to be a GEM program. First, I compiled with the TOS option and renamed the ".TOS" program file to ".GEM". No go -- crash city. The answer finally dawned on me: compile with the GEM option -- who cares if you don't call any GEM stuff, you can still have a GEM program that doesn't actually USE GEM. So, we just compile this suspiciously TOS-looking program as a GEM program and, viola!, she works perfectly every time.

If you don't care about any of this programming garbage, but just want the utility, you can find it on Help Key II under the name "DATESET.PRG." Enjoy, and watch out for 'dem bugs.

```
PROGRAM DATESET;
VAR
  MONTH, DAY, YEAR : LONG_INTEGER;
  HOUR, MINUTE, SECOND : LONG_INTEGER;
  DATE_TEMP, TIME_TEMP : INTEGER;
  ANSWER : CHAR;
  PROCEDURE SETTIME(DATE, TIME : INTEGER);
  XBIOS(22);

BEGIN
  WRITE('DO YOU WANT TO SET THE DATE AND
        TIME? ');
  READLN(ANSWER);
  IF ANSWER = 'Y' THEN
    BEGIN
      WRITE('ENTER MONTH (1-12): ');
      READLN(MONTH);
      WRITE('ENTER DAY (1-31) : ');
      READLN(DAY);
      WRITE('ENTER YEAR (0-99) : ');
      READLN(YEAR);
      WRITELN;
      WRITE('ENTER HOUR (00-24) : ');
      READLN(HOUR);
      WRITE('ENTER MINUTE (0-59) : ');
      READLN(MINUTE);
      WRITE('ENTER SECOND (0-59) : ');
      READLN(SECOND);
      DATE_TEMP := INT((YEAR-80)*512 + MONTH*32
                      + DAY);
      TIME_TEMP := INT(HOUR*2048 + MINUTE*32
                      + SECOND);
      SETTIME(DATE_TEMP, TIME_TEMP);
      WRITELN('DATE AND TIME ARE SET');
    END;
  END;
```

## SOUND PROGRAMMING

by J.D. Craig

### FREE 8 BIT MUSIC - AMS

Lee Actor's ADVANCED MUSICSYSTEM (AMS), (C)1982, was one of the first, and most used pieces of disk based software bought by the Craig family for our 48K Atari 400. Quite a bit of music was created on the system, and it's proved itself an interesting and reliable tool. One of the first software pirates I met had contacted me to trade song files for the system, and I was delighted to learn how much public domain software had been written and distributed for the AMS.

Since then, another AMS has been released, but I stuck with my old one. (If it works, why fix it? Besides, I'm seldom "the first on my block" to get the "new and improved" versions of anything. Just cheap, I guess.) And rumor has it that there have been other AMS developments, including routines to allow the use of AMS song files in MIDI protocol.

But the good news to any ABES ACE who owns a modem, or has friends who do, is that on the HELP KEY II there is a public domain program that will play any AMS I or II files. It's called JUKEBOX.BIN, and when binary loaded (from DOS 2 without BASIC) presents an operating screen with options for Directory, Select individual song, or Auto-Play - which will play through all AMS files in directory order. While playing the music, the standard AMS "keyboard" is displayed, with colors showing which notes are sounding. SYSTEM RESET returns to the operating menu. The simplicity and reliability of JUKEBOX.BIN make it one of my favorite pieces of software. Don't

have any AMS song files? HELP KEY II does, and none of them is over 200 SD sectors long. Twenty-one files carry the .AMS extender, and are ready to load and play. They are: 1STNOEL.AMS, BEATIT.AMS, CHEERS.AMS, DECKHALL.AMS, FAME.AMS, GHOSTBST.AMS, HOLYNITE.AMS, JNGLEBEL.AMS, KNGTRDR.AMS, LIBERTY.AMS, MANIAC.AMS, PENYLANE.AMS, PRESSURE.AMS, SHAKEIT.AMS, SHERRII.AMS, SILENT.AMS, STAIRWAY.AMS, STARTREK.AMS, STARWARS.AMS, TIGEREYE.AMS, and VIRGIN.AMS. But there may be other AMS files without the .AMS extender: JOHNNY, for example, is an excellent one, a fresh and inventive arrangement of "When Johnny Comes Marching Home", uploaded by fellow musician John Kacmarcik. To find JOHNNY or the .AMS files, use the BBS's Catalog option with appropriate wildcards (\*). But to hunt down other stuff, use the Listing option, which includes descriptions. And be careful. For instance, there are 3 Star Trek files - STARTREK, STARTREK.DOC, and STARTREK.AMS - only the last is music for AMS.

AMS uses four "voices" created by the POKEY chip, and the musically sensitive might notice that it's slightly out of tune - some notes more so than others. But it's tolerable, especially when the arrangement (like JOHNNY) takes advantage of the MusicSystem's strong points - like controllable dynamics and nicely rounded "envelopes" on the notes produced. But some tunes have serious flaws, for example, BEATIT.AMS (Michael Jackson's BEAT IT), which is seriously messed up. Either the programmer goofed, or line transmission has garbled it. We hope you'll get and try out these pieces of free software. If anyone has any further information on things mentioned here, please direct your comments to me c/o HARDCOPY. Next issue - 8 bit MIDI.

## **LDW BASIC Compiler**

### **Version 2.0**

a 16 bit review by  
Gary A. Hilbert

The April 1987 edition of the ABE's ACES newsletter (& Delphi) ran my prior review of version 1.0 & 1.1 of LDW Basic Compiler, therefore I will provide just enough information about these older versions to permit comparisons with the new version 2.0 and with Atari STBasic.

Basically "ouch...just can't seem to leave that pun alone" the LDW Basic Compilers are intended to allow basic language programmers to produce ".prg" type programs that run off the Desktop or from a DOS shell. There is no need for a run-time module as some pseudo-compilers require, nor are ".rsc" files needed. The programs you write are fast, compact & totally independent (complete) programs that you may legally give away as you wish. You can include as much, or as little, GEM-ness as you desire up to and including a full desktop application with menu bars & the works.

It's hard to pick which version 2.0 improvement is the most impressive so I'll merely list them for you: 1. high level (simple commands) access to most of GEM including menus, dialog boxes, buttons, file selectors, user-defined windows, edit fields, text & graphics, mouse control, custom icons etc. 2. block IF\_THEN\_ELSE structures (similar to CASE in other languages) 3. user defined procedures which use local or global variables, & parameters or parameter arrays. 4. INCLUDE compiler metacommand ... for

including your own source code routines shared among many programs. 5. event trapping...possibly the most powerful enhancement to this package. by trapping DIALOG, MENU & MOUSE EVENTS your programs can be designed to operate very similarly to professional GEM-Desktop based programs. simulates the event-multi call...but much easier to do. 6. the "shell" programming environment 7. improved & included GEM low level bindings ... for picky people these allow complete access to all of GEM and now utilize syntax similar to C ... you could use almost any book or magazine for guidance. 8. compatibility with either the original STBasic or the new STBasic interpreter Numbers 2, 3, & 4 allow you to write modular, structured programs very similar to the languages we've heard so much about; Pascal, C, Modula.

The system is provided on two unprotected single sided disks. A fantastic GEM-based "shell" is provided as well as a separate command-line/batch version for those who prefer DOS over GEM. Other provided programs which you will need include: the fast LDW linker and its associated utilities (remove & wait) standard library math library or the precise math library (slower but more precise). Optional provided programs include: several sample batch files GEM bindings on disk (usually not needed...but it's included now... it was an \$18 extra before) 8 good sample programs illustrating useful techniques a batch language processor (if you don't have a DOS) ldwbatch.tpp a crummy (early) version of microEMACS text editor (get version 3.9 from the ST librarian ... it's MUCH better)

The compiler still allows line numbers as an option; to preserve compatibility with the STBasic interpreters. You can compile straight to binary and link up an executable ".prg" style program or you can have the compiler produce assembly language source code. NOTE: the package no longer includes the assembler, but it is compatible with the standard as68 as in the Atari Developers Kit.

I ordered the update for \$25 and got about 180 pages of additional manual which fit right into my 3-ring binder from version 1.1. Presumably a new purchaser would get the whole thing...I didn't check. I now have about 1 1/4 inches of useful, indexed manual.

System equipment recommendations: (my list, in order of preference) 1. any ST with a hard disk 2. a 1040ST with a good public domain ramdisk ~ 500k 3. any ST with at least one double-sided drive 4. any ST with two single-sided drives 5. (masochists special)---- a 520 ST with one single-sided drive. Option 5 is possible but requires disk swapping. The minimum configuration requires 236k of disk space for the batch/DOS style compiler plus 191k for the linker, libraries, and required utilities. Throw in some room for your source code, intermediate working file generation and your favorite editor (microEMACS 3.9, STedit, STWriter, or STBasic Interpreter) and you can quickly see it will not all fit on one single sided disk. Two single sided disks, one double, or one disk plus a good-sized ramdisk works nicely. Actually a 500k ramdisk for all "active" files with only the libraries on a floppy seems to provide the speediest

overall program creation. The GEM shell programming environment (which adds about 37k) allows very easy customization and designation of the disk/path locations of all the needed pieces including the name & location of your text editor.

This compiled Basic is for anyone, who like me, has grown comfortable with basic over a span of many years and who wants to make nice, fast, desktop runnable ".prg" type programs w/o the need to learn C, Pascal, or Modula. The addition of easy to use GEM features as well as power programming features (procedures and block IF\_THEN\_ELSE) place this compiler on an even plane with any other language available for the ST.

For some reason the magazine reviewers have given earlier versions of this compiler some bad raps; I hope to see updated reviews for the new version. It seems many of these writers object to the "speed" of this basic. What they really mean is that the compiling time is longer than some of the C compilers. A database program I've been writing had (about 3 months ago) 19010 bytes of source code...this program took 2 minutes and 8 seconds to compile into a finished program of 54419 bytes. I don't think that's too shabby...perhaps these writers could tell me how long it will take to learn C ?? I can make a boatload of 2 minute programs in the time it takes to learn a new language. Don't get me wrong, I am not against C or learning new things...I just don't like these professional programmers telling me I just have to switch to C to save myself some time.

*revised article by Gary A. Hilbert  
3/23/87, revised again by Gary A.  
Hilbert 10/10/87*

## **ATARIS ATARIS Everywhere ...**

an Editorial comment by  
Robert MacGregor

### **BUT NOT IN MY AREA!**

After going through a major move all I need was to put my 130ex back up on line and find out it did not work. Well, half of the keys worked and the other half did not. I then decided to take the ST plunge. I started to travel to the local computer stores and quickly discovered that those who used to sell the ST's did not anymore or else the one's that did would not push selling them.

At the Montgomery Mall Electronics Boutique I approached the purchase of a new computer as if I was a new buyer interested in only the MIDI aspect of computing. The salesman initially acted as if the ST did not even exist. His entire talk was about Commodore and the Amiga. When I asked him about the 520ST he said he would not recommend it because Atari has already stopped supporting it. It made me wonder why such a good machine was being badmouthed by this salesman.

I then travelled upstate to a computer store which sells the ST being that they have a good deal on one. It was near closing time and since I was the only customer I had a chance to talk with the dealer. I asked him why is it that very few stores will carry the Atari line. From him I received some very disturbing news. He began listing several reason why the Atari

computer is hard to find in the marketplace. 1)Atari's warranty policy: If you were an Atari dealer and you receive an defective computer or a computer would come back to you under warranty you would have to repair it at your own cost. Thus a dealer could stand to lose money under such conditions instead of making money. A businessman can stand to lose only so much before dropping a computer line like a hot potato. My question to Atari would be: why do you expect your dealers to fix your mistakes? They did not make them defective, did they? 2)Atari's Marketing Policy: Because Atari releases their computer to national distributors with larger discount to them, the local dealer has a hard time trying to beat or even come close to the mail order prices. Therefore, he becomes discouraged from marketing them or, if he carries them, from selling them. Why push an ST and make a small profit when you can push Apples or Amigas and make a large profit? Remember, in today's marketplace the almighty dollar rules! 3)Atari's Competition Policy:

Atari obviously feels its ok to go into competition with your own dealers. They bought out an electronics chains out in the western United States. So the first thing their dealers started doing is to go out to find other computers to market.

Atari has been able in the past to put together a very good computer but their track record in marketing them probably can be studied by business schools on how not to market your product. They better wise up before the customer will need to travel to Sunnyvale California to buy an Atari computer.

# ARKANOID

a 16 bit review by Patrick Souder

Arkanoid is basically a really spruced-up version of the classic arcade game Breakout. These games are similar in a lot of ways, but Arkanoid really offers a lot of new ideas to the old game concept. Instead of merely batting a ball back and forth, hoping it does not slip by your trusty paddle, IMAGINE software has come to the rescue.

The object of Arkanoid is almost just like Breakout. You have to prevent (or try and prevent) the ball from whizzing by your paddle, while also trying to break all of the blocks and go on to the next screen for some more punishment. One word of warning though: This game is ADDICTIVE!

How many different levels are there you might ask? Well, I am told there are 33 in all. (Believe me, I am not speaking from experience...) On the last level you come face to face with the master. If you manage to defeat him you will finish the game, but be prepared for a tough battle.

Some levels are harder than others and you may find some higher levels that are easier than some lower levels. Most of the Arkanoid fans I know usually find level 3 to be a "toughie."

Now, if you really want to earn some high scores and finally get to level 33, catching the colored capsules that fall down is a MUST! Each one you catch gives you 1,000

points. The grey capsule gives you a free man and the pink capsule awards you 10,000 points and allows you to warp to the next level pronto. If you happen to get the red capsule, your paddle turns into a gun which is useful for shooting out the rest of the bricks remaining on the screen. Green capsules allow you to carry the ball on your paddle so you can "aim" and release it. Others like light blue splits your ball into 3 balls. As long as you keep your eye on one of the three, which is not exactly easy, you'll be alright. Also there is a "bad" yellow capsule which takes away your present power capsule abilities.

Occasionally the ball will fall into a pattern, not hitting anything. It will just bounce off a few walls and back again. To get the ball out of this pattern, you will have to hit the ball on the very edge of the paddle, which is no easy task by any means.

If you really want to see what the higher levels look like and you're going "BONKERS" trying to get there, a couple of "useful" utilities are in circulation which "bend the odds in your favor" while playing Arkanoid. There is the Arkanoid cheater which gives you the choice of the number of lives you get and the beginning level. Also, there is a "slow-mo" (slow motion) which slows the speed of the game.

All of you Arkanoid fans will be pleased to know that a brand new version Arkanoid is on the way. It's called Arkanoid II, what else! From what I was told, it offers 33 different screens, with the same game play as the original. The levels are supposed to be more interesting, easier and more colorful than the original. Also be sure to check out another

Arkanoid game called Championship Arkanoid.

In conclusion I would like to wish good luck to all of the other entries submitted for the club contest and who knows... If you are lucky enough, you too can play Arkanoid on your new Atari 520 ST monochrome system courtesy of ABE's ACEs!



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## ST or not ST, that is the question!

by B. J. Martinick

To buy an ST or not, that is! Much has been said lately about the Atari ST series of computers. Many good things, to be sure. And many Atari users with the 8 bit computers are being told they are living in the Dark Ages for not immediately going out and purchasing a shiny new ST. Are they? Should they?

Many Atari 8 bit users are also putting down the ST. Why? One reason given is that it is not compatible with their old software. Not a very good reason. If you want to use your 8 bit software just use it on your current computer. There is really no good reason to look down on the ST. It is a marvelous technological achievement.

There is also no reason for the ST owners to downgrade the 8 bit line which now includes the 400, 800, 1200XL, 600XL, 800XL, the 65XE and the 130XE. Quite a long line, each relatively compatible until now. Each to his own computer for whatever reason, be it financial, sentimental or any other.

I am an Atari 8 bit user. I have owned the 400, 800, 800XL and now a 130XE. I like my trusty XE and I like to use it. I use it for word processing. This newsletter article was written using PaperClip (from Batteries Included), one of the finest WP programs available for ANY computer. I access remote Bulletin Board Systems (BBS), to upload and download public domain programs

and use their message bases. I use it for my mail lists and as a database (LabelMaster V1.6). I run my entire business on it. Invoicing, Purchasing, General Ledger, everything (the Small Business System V1.2). I like to program. I wrote the two previously mentioned programs and market them nationally. I create awards, ads, newsletters and more with graphics programs. My children use educational programs to make learning fun. And the whole family like to play games! As far as hardware goes I use a 130XE (upgraded to 320K!), 2 1050 disk drives (both modified for true double density), a 1200 baud modem, a color composite monitor and an Epson NLQ printer. To interface my Atari to the printer and modem I use the ICD Multi I/O. This unit also allows me to interface to a Hard Disk. Imagine 20 Megabytes (or more!) of disk storage instead of 70 to 140K. The equivalent of over 200 single sided 5 1/4" disks available without swapping disks.

Now the ST comes along. A true 16 bit processor, better graphics, more speed, more memory and more money. Hundreds of dollars more to buy a complete system. Should I? Could I? No, not now! I have all the computing power I need or want. That is not to say the ST isn't a good computer. It is. I'm sure every ST owner can give me lots of reasons why it is a better computer. But will it be better for me? I like my 8 bit Atari and I really don't think an ST will be right for me just now.

Every Atari user will have to decide for themselves what is best. The temptation to buy a new computer is hard to resist but think before you act. Consider what you want a computer for. What you would like to do with it. Then ask

yourself if your present computer fulfills your needs. Maybe a new computer is in your future.

We are all Atari owners and users, be it an XE or an ST, and brothers as such. There is no reason to be prejudiced or biased against any computer or its owner. Instead let us band together as Atarians!

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| O |                                   | O |

## Tenth Frame Bowling

a 16 bit review by Joe Souder

I like bowling and I like my ST. Finally the combination has come together and I REALLY like IT! It is Tenth Frame Bowling from Access Software. Here is my review of what I think to be a very good game. See what you think of it.

### Game Play

The game starts off by asking you if you want to Open bowl or League bowl. In open bowling, you can have up to eight people bowling right in a row. In league bowling, there are two teams with up to four players on each. You then can set up each bowler as a Kid, Amateur, or Pro bowler. The kid level being the easiest. Then you are off to the lanes.

### Screens

The screen on which you bowl has 7 lanes on it, with your lane lit up. On the lane, as in real bowling, there are seven spotter arrows. The programmers also went to the detail of putting a picture of the pin rack above the pins to show what pins are left up. At the top of the screen is the person bowling's section of the score sheet. After every bowler has completed his frame, the whole score sheet pops up until the left mouse button is hit, upon which you bowl another frame.

### The Roll

To roll the ball down the lane, a few things must be done:

- 1) Set bowler on approach (Done by dragging with right mouse button); 2) Drag pointer on lane to desired spot

(Done, again, by dragging with right mouse button); 3) Hit left button to start bowler down lane; 4) On the right of the bowler is a chart with two bar graphs on it to set the speed and hook of the ball. The bars start to fill until you press the button again, in this way, you can set the speed and hook of the ball.

### So Good you Can hear a Pin Drop

One of the best features of the game is the sound. All the sound in the game sounds just like real bowling. For instance, when the ball rolls, you hear the ball roll as if you were at the lanes! When you hit the pins, you hear them fall. When you get a strike or spare, people clap in the background, also. There is even the Marshall Holman 'yah!' type yell on the strike. And again, all the sounds sound real and very clear.

### Complaints????

Well, the best games have SOMETHING wrong with them, and there is just ONE complaint I have. I am a lefty and well...actually what I am getting at is that the settings for each bowler is not varied enough. For instance, there are no settings for ball weight, handedness, or slickness of the lanes.

### In Closing...

All in all, it is a very good game, and I recommend it highly as a fun and entertaining game. If you want a "Pro Bowling Simulator" for the ST, this is the one. (It's also the ONLY one...)

# Personal Pascal

## Version 1

an ST review by Chris Scullion

I have a confession to make. Yes, I am forced to admit it -- I hate C. The language of choice for most ST users, the one used by ATARI itself, the Great Language of UNIX -- I don't like it. I will often go out of my way to avoid using it. Now, understand that just a couple of years ago I had the exact opposite opinion -- I loved the language and all its promises of portability and ease of use. But now, after having programmed with it for a couple of years, after having written several very large applications with it, I've come to the conclusion that it can't live up to all those promises.

But all of this is just by way of introduction -- my hate of C could fill volumes. Now, I know what you're thinking: "If he hates C, what DOES he use?" Well, as you can tell from the title, I like PASCAL. I've also used PASCAL for lots of big programming projects and it has yet to cause me any difficulty. In fact, it has done nothing but helped the style, readability, and "debuggability" of everything I write. And so the question is, "What's good in PASCAL for the ATARI ST?" I've seen and used Personal PASCAL from Optimized Systems Software (OSS), and it's just great!

Let's start with the important stuff for you ST and C lovers. It completely supports the GEM operating system and the programming environment is

GEM-based. That is, the compiler and linker make full use of the familiar GEM goodies such as menus, alert boxes, dialog boxes, etc. The language itself is a very standard PASCAL -- nothing is missing, no surprises. It fully supports all of the data types you expect; char, integer, real, enumerated types, sets, long integers, records, arrays, pointers, etc. Even variant records are there, something often omitted from small PASCAL compilers. OSS has added the type "string" (along with the appropriate string handling procedures) to make text processing easier. On top of all of this, it sells for less than \$60.00!

Personal PASCAL also, as stated, completely supports GEM. There are all kinds of predefined procedures and functions that make the use of GEM's tricks trivially easy. Alert boxes are performed with a simple call as follows:

```
result := do_alert('[3][Press ok to continue]ok|cancel],2);
```

In the above example, the [3] means that a GEM "stop sign" should appear in the alert box. The next [] is the text for the box, and the last group are the buttons which will appear at the bottom of the box. The last number indicates which of the two buttons is the default (that is, which one will be selected if you hit return). Dialog boxes are also easy to do with the built in procedure and functions, as are menu bars and windows.

I must also mention that not EVERY possible GEM function is predefined for you. However, ninety percent of them are, and there is a standard routine set up for you to add the rest if you need them. You

can call any VDI, AES, BIOS, XBIOS, or GEMDOS function with a few simple lines of code. It's a VERY programmer-friendly system.

The manual provided with the disk is well organized and helps the GEM novice step through creating GEM-oriented programs. There are also examples of how to write a desk accessory, access the system clock, and handle all GEM events. The manual is very thorough and accurate. There are a few corrections listed on the disk, and only one information error that I have discovered. For those of you using Personal PASCAL, or thinking of getting it, please be aware that the do\_dialog and redo\_dialog functions return INTEGERs, not TREE\_INDEXs as the manual states. Using the wrong type will not give a compilation error, but if you double-click in certain boxes within the dialog, the system will crash. OSS seems to have fallen victim to their own error since double clicking on a box in any of their dialog boxes will also cause a system crash -- so be aware of this minor documentation problem.

The compiler supports several nice options, including run-time stack checking, array bounds checking, and pointer bounds checking, all of which can be disabled with the click of a mouse. Probably the most powerful extension added by OSS is modular compilation. This is essentially equivalent to C in that the program can be broken down into multiple files for separate compilation. This greatly enhances the modularity of any program and is a necessity for large programming projects. The only thing I've found lacking in the

compiler is the ability to "batch" compilations so that you don't have to manually recompile all the separate modules.

The linker is fairly nondescript. It does its job flawlessly and they claim it is compatible with the linker supplied by ATARI. The only enhancement I'd like to see is more space to list object files to be linked together. This is necessary for anyone who makes extensive use of the modular compilation option of the compiler.

The editor is the only part of the system which may prove controversial. I like it, but it's not what you'd expect from a GEM based product. Others may complain about the lack of GEM features such as menus and dialogs, but I've found it to be very intuitive, easy to use, and quite functional. It is entirely keyboard-bound (the mouse is not used), which is just as well for writing a program. It uses a workable copy buffer system to allow cutting and pasting within and between files, although I've found block copying to be a bit cumbersome for large numbers of lines. It is a good enough editor that I have not even been tempted to haul out a word processor as a substitute. But then, word processors can often prove awkward for program development.

When you think about what you really want in a GEM programming environment, Personal PASCAL is a programmer's dream come true. Even a novice GEM programmer will have dialogs, windows, menus and the like up and about the screen in no time. So kick the C habit -- start programming without fear and with a powerful

and easy to use set of tools by your side. OSS's Personal PASCAL is a real winner!

(A note of explanation is in order now. After writing this review, I placed a call to OSS and found that Version 2 is now available. Over the phone, I described the problem regarding double-clicking in an exit box. Version 2 DOES NOT have this bug. The documentation on this point has apparently been corrected, as well as the boxes in the compiler and linker options menus. Version 2 is on its way to me now, and I will follow up with a review of its enhancements as soon as possible.)

## TIME IS RUNNING OUT!

The Club's contest is almost over, and so far competition is not very stiff. With the number of entries we currently have, the odds of winning look pretty good! Don't forget what's at stake here:

First Prize: a 520 ST monochrome system

Second Prize: an Avatex 1200 baud modem

Third Prize: a Gemini gift certificate

All you need to do is attend the meetings and write an article for the newsletter. Simple! (Attend three out of four general meetings between September 1987 and December 1987, inclusive, and submit an original 500 to 1000 word article.)

## PRESIDENT'S COLUMN

Here's the latest status report on club activity (or, in some cases, lack of same).

Leon Bonam managed to get Micro League to our October 10th meeting. They showed us the ST wrestling program and the baseball program which is available for both Atari systems. I found the talk a little depressing. It seems sales of Micro League's Atari software are not what had been hoped for. In fact, ST sales in the U.S. are not what Micro League had thought they would be. For that reason, no additional 8-bit software is planned and the new football game may or may not be released for the ST. To be honest, I don't find either of the programs Micro League has released to date worth buying. With all of the other "extras" disks that are needed to complete the programs, the stuff seems way over priced. My first thought was that might be why sales aren't so hot. We were told, however, that sales for other computer brands has been much better.

In any case, because of Micro League's visit, the presentation on Geneology has been moved back to our November 14th meeting. December's meeting will be our annual holiday get together.

On October 15th our BBS went 2400 baud. It now supports 300/1200/2400 baud operation.

Last but not least: 8-bit/16-bit.

No sugar coating this time. From all indications, 8-bit support is dead in ABE's ACEs! We've got lots of 8-bit users, but I can only think of two or three that actually support other 8-bit users. What do I mean and how did it come about?

When this year's E-Board was elected, two of the seven members were 8-bit users. When two board members had to resign a couple months ago, we lost one of the 8-bitters. Since that time, the last 8-bit owner on the board has sold his system and purchased an ST. All seven board members now own ST computers.

Over the years, an important area of support for our club members has been our public domain disk library. Jim Mueller, Clay Wagner, John Slaby and Robert Macgregor have all served as 8-bit librarians over the past five and a half years. When Chris Andrews, an ST owner, was elected head librarian in June, Robert MacGregor offered to help out by putting together 8-bit disks for the club. A few weeks ago, Robert's 8-bit system died and he replaced it with an ST. He can no longer assemble 8-bit program disk masters for John Douglas to duplicate.

What can the club offer to ANY Atari owner? Demos from members and outside guests, public domain software, a newsletter with reviews and articles of interest, Special Interest Groups on topics that are of use to you, a BBS with programs and information to help you and an opportunity for you to meet and talk with other Atari owners and to share in their collective pool of knowledge.

I think ABE's ACEs does each and every one of the above IF you're an

ST owner. If you own an 8-bit Atari, the club now falls very very short. The only way this is going to change, is if a number of 8-bit users take the plunge and support the club. There will be no 8-bit reviews or articles in HARDCOPY unless you write them. There will be no 8-bit demos at meetings unless you do them. There will be no 8-bit activity on HELP KEY II unless you create it. There will be no new 8-bit library disks unless an 8-bit owner takes the position and there will be no 8-bit representation on the E-Board unless an 8-bit user runs for office in June.

## **Newsletter Advertising Rates**

**1/4 Page → \$15**

**1/2 Page → \$25**

**Full Page → \$40**

## ABE's ACEs

Allentown Bethlehem Easton's Atari Computer Enthusiasts is an independent user group organized and run by owners of Atari Computers. Atari is a trademark of Atari Corp.; all references should be so noted.

If you would like more information about ABE's ACEs, write us at the club's address or call the club Hotline at the number listed below.

## Newsletter

This newsletter is published by ABE's ACEs on a bi-monthly basis (six issues per year). Opinions expressed in this newsletter are those of the author and not ABE's ACEs. All unsigned articles should be attributed to the Editor. This newsletter is provided free to our membership and on an exchange basis to other user groups. Original articles from our newsletter may be reprinted in other newsletters provided credit is given to both author and source.

Submissions to the newsletter may be made via the Help Key II, at the general meetings, or by mail to the club's P.O. Box (both magnetic and paper copies, please). For more information, leave messages on the Help Key II or call the club Hotline.

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16-Bit Disks ————— Chris C. Andrews  
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## Club Phone Numbers

Help Key II BBS ————— (215) 759-2683  
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